

NEW JERSEY STATE SURVEILLANCE

Weekly Report for Week 37, 9 – 15 September, 2003

Submitted by Lisa Reed and Wayne Crans

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Purpose: Data from 84 New Jersey light traps contributed by county mosquito control agencies are used to calculate trends in mosquito populations for species of nuisance or health concerns.

Calculations are based on regional distributions, with emphasis on mosquito habitat and land use. Trends will allow a statewide evaluation of changing mosquito populations, in response to control and/or changes in habitat.

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Figure 1a: Map of ten regions selected for the New Jersey Surveillance Program overlaid with county borders.



Figure 1b. Trap lat-long locations.



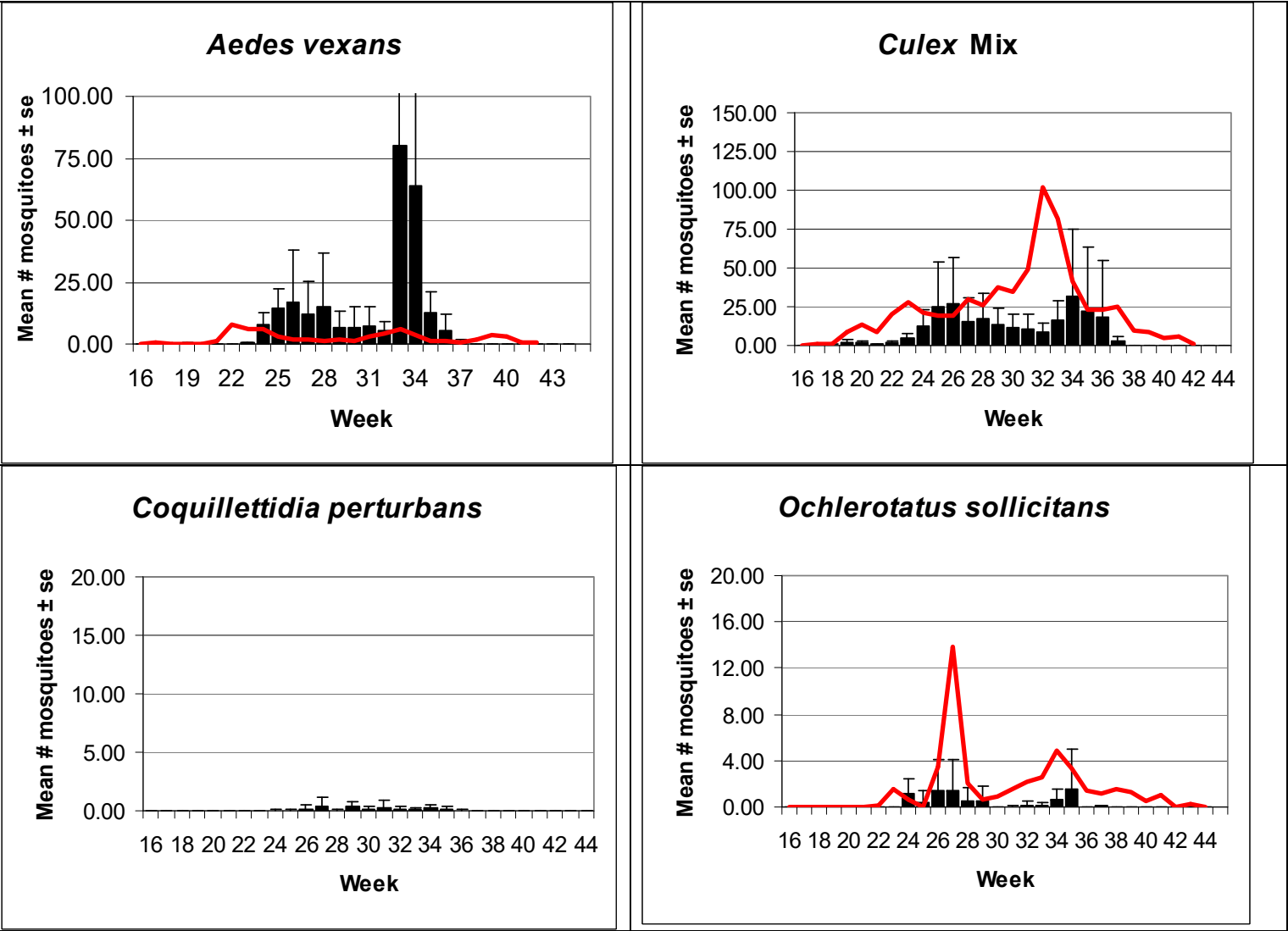
Summary table

	<i>Aedes vexans</i>		<i>Culex complex</i>		<i>Coquillettidia perturbans</i>		<i>Ochlerotatus sollicitans</i>	
Region	This Week	Average*	This Week	Average*	This Week	Average*	This Week	Average*
Agricultural	0.64	1.29	2.48	23.36	0.00		0.07	1.21
Coastal	1.94	4.71	2.40	3.54	0.05		3.49	7.33
Delaware Bayshore	0.00		0.00		0.00		0.00	
Delaware River Basin	2.07	5.91	2.89	4.70	0.00		0.00	7.80
New York Metro	1.89	1.46	4.59	3.20	0.00		0.00	0.08
North Central Rural	0.10		0.27		0.00		0.00	
Northwest Rural	4.38		3.24		0.00		0.00	
Philadelphia Metro	1.43		0.85		0.00		0.00	
Pinelands	0.84	1.81	2.83	1.65	0.03		0.06	
Suburban Corridor	2.06	24.65	2.93	3.37	0.26		0.00	

- Complete data not yet available.

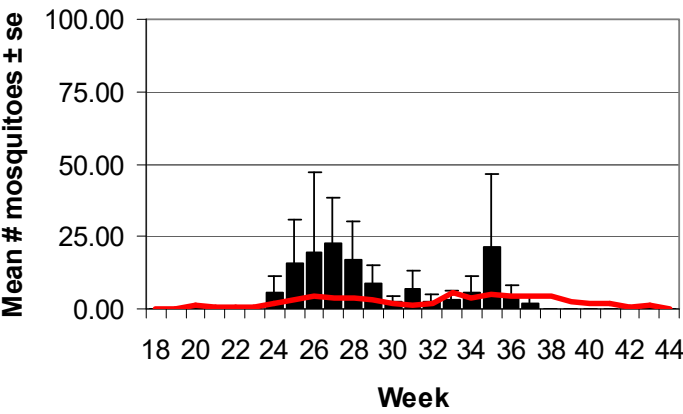
Please Note: Historical data is being entered and not yet complete. These values and graphics will change as more data is entered.

Agricultural

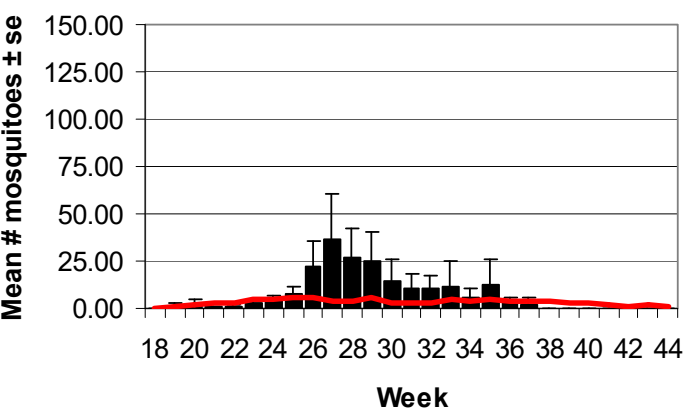


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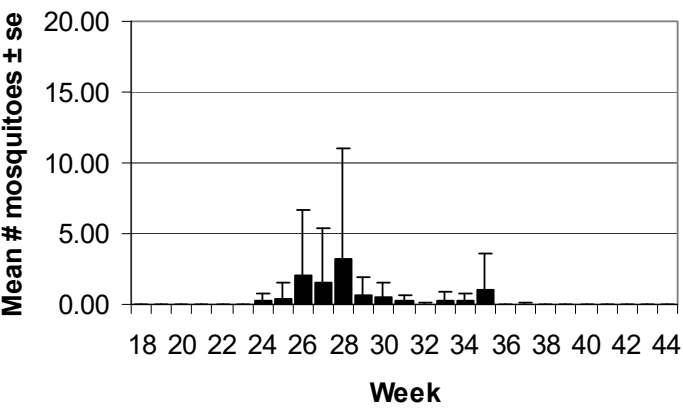
Aedes vexans



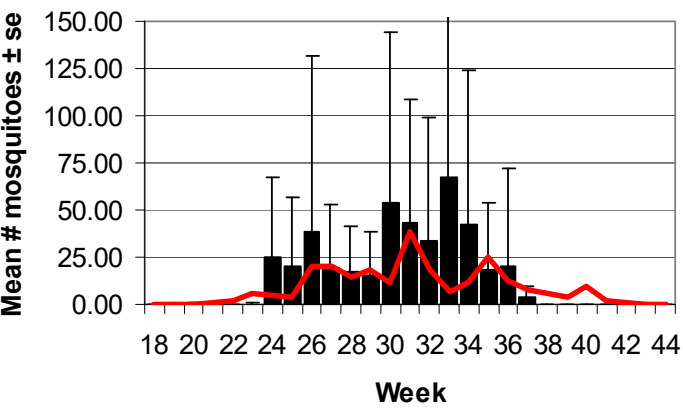
Culex Mix



Coquillettidia perturbans

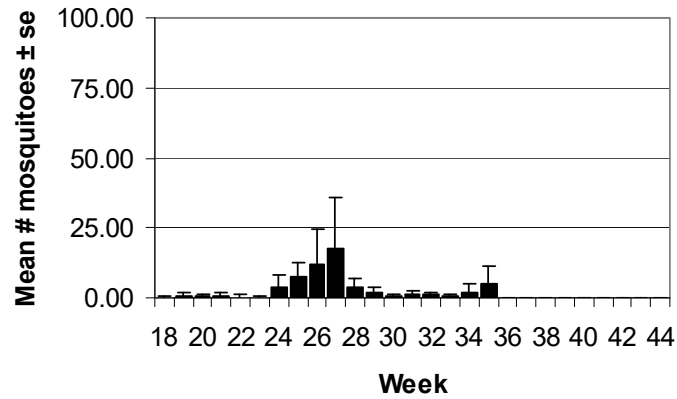


Ochlerotatus sollicitans

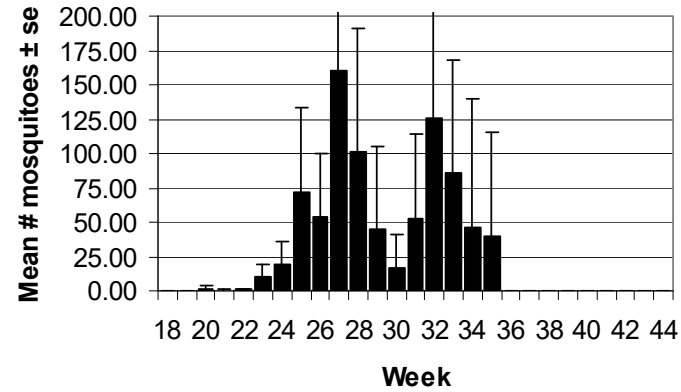


Delaware Bayshore

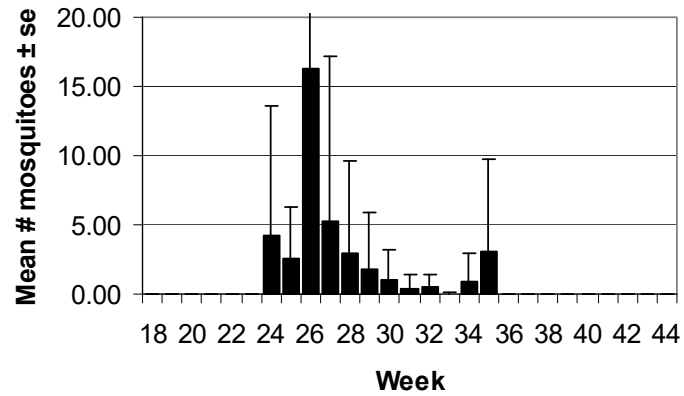
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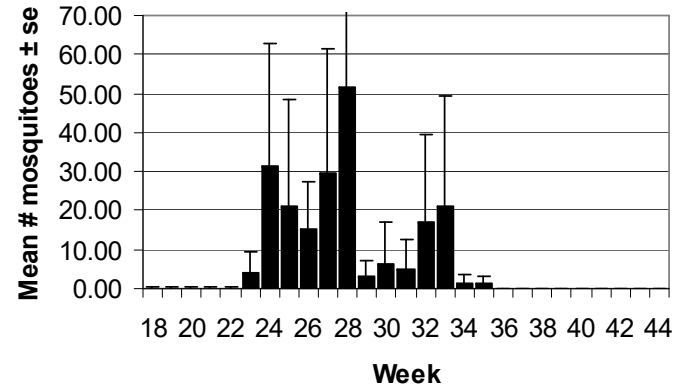
Culex Mix



Coquillettidia perturbans

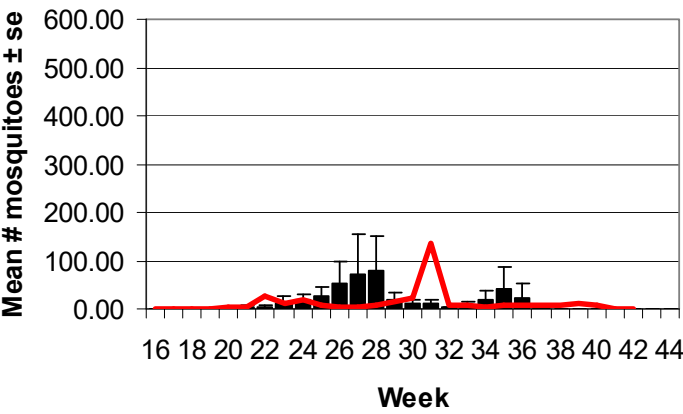


Ochlerotatus sollicitans

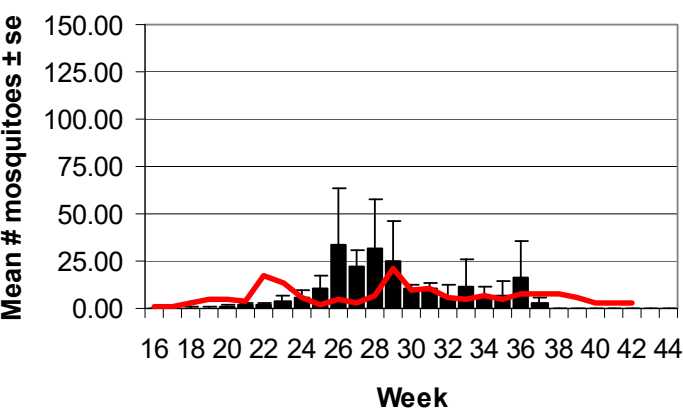


Delaware River Basin

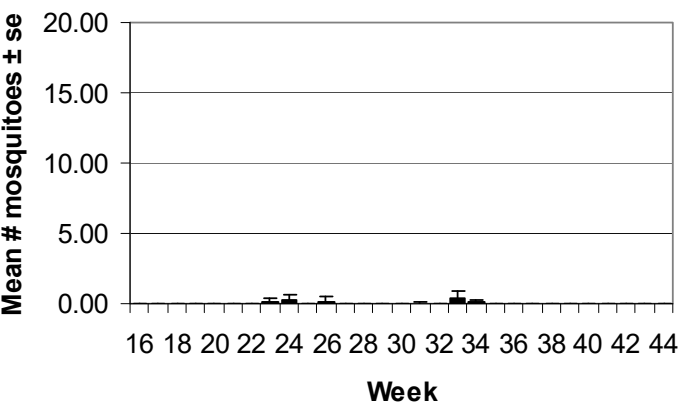
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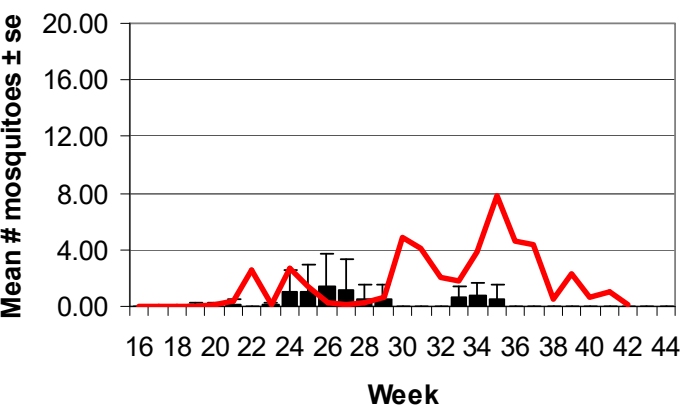
Culex Mix



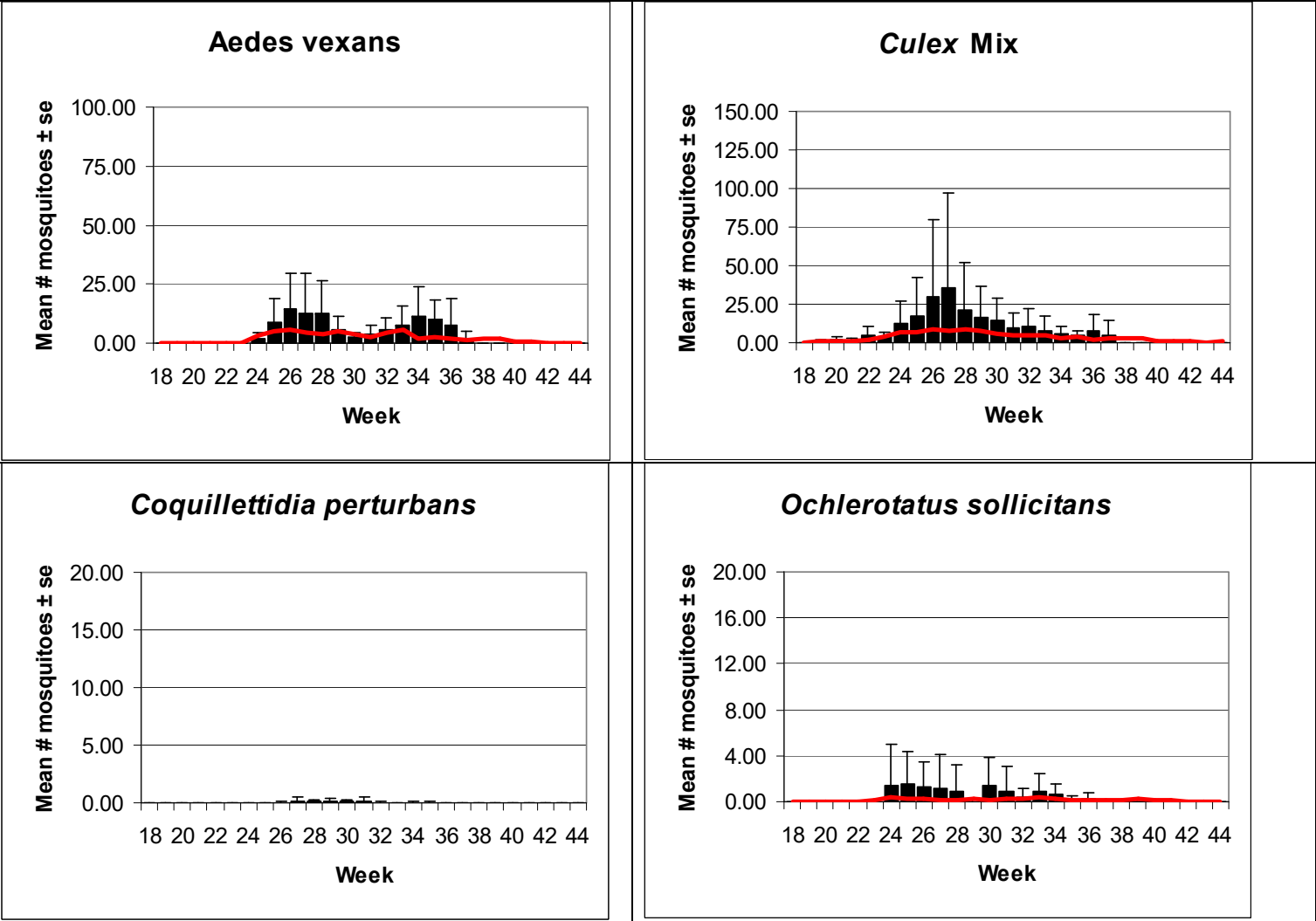
Coquillettidia perturbans



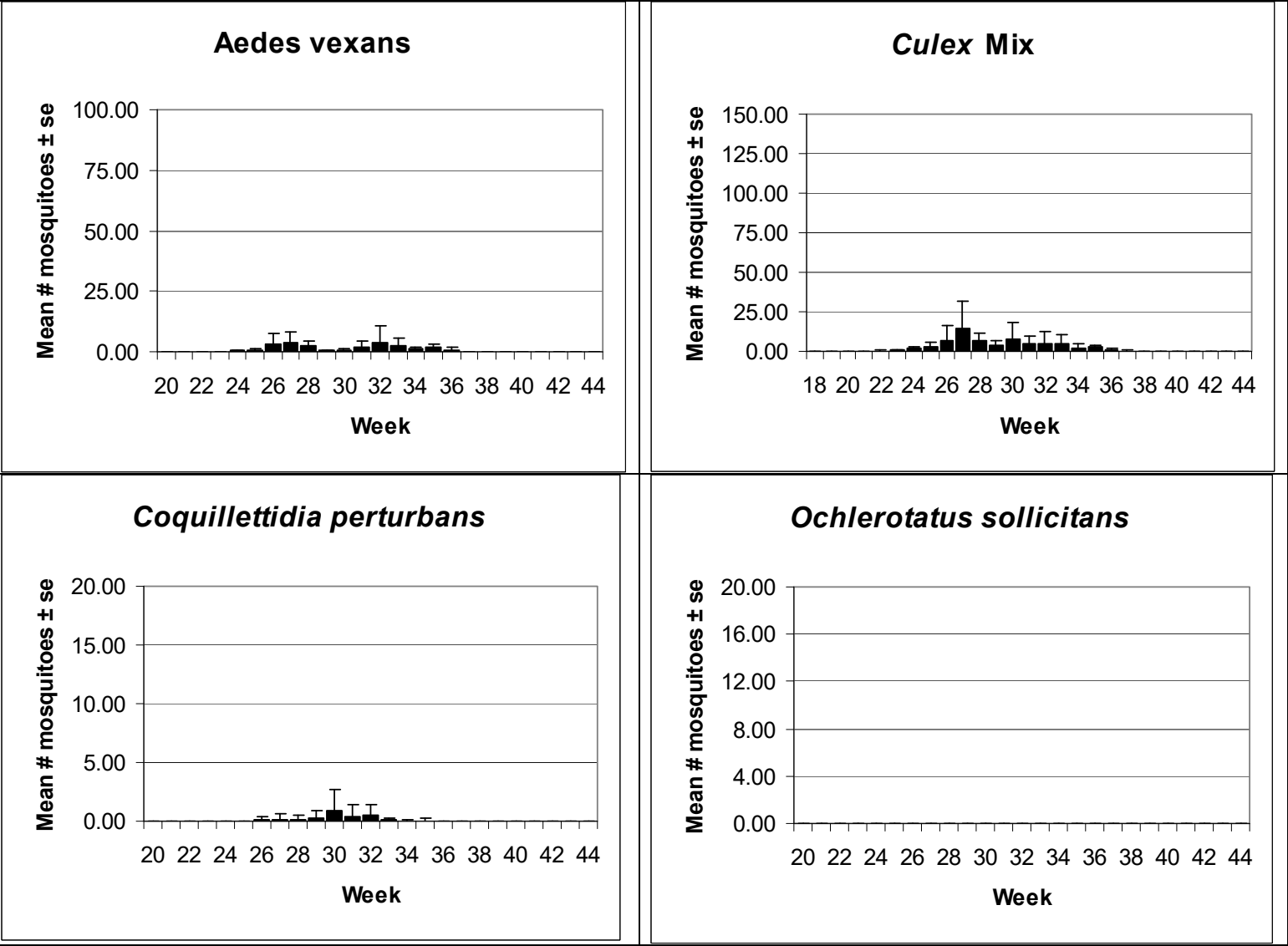
Ochlerotatus sollicitans



New York Metro

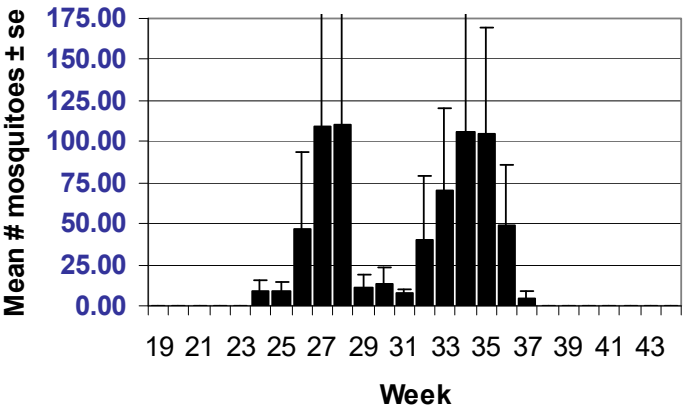


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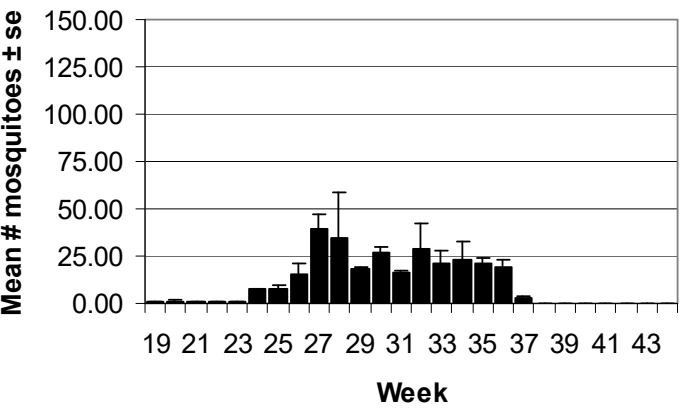


Northwestern Rural

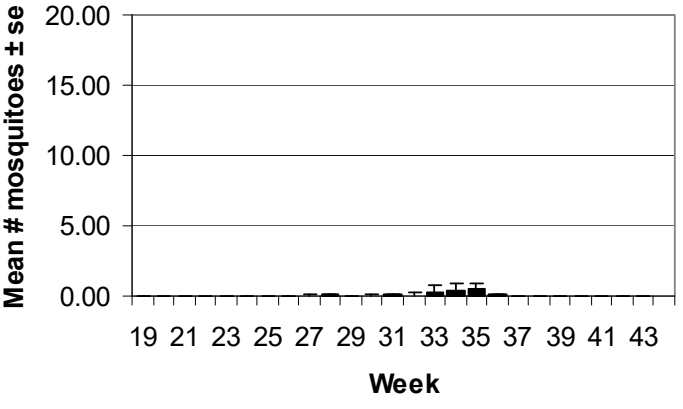
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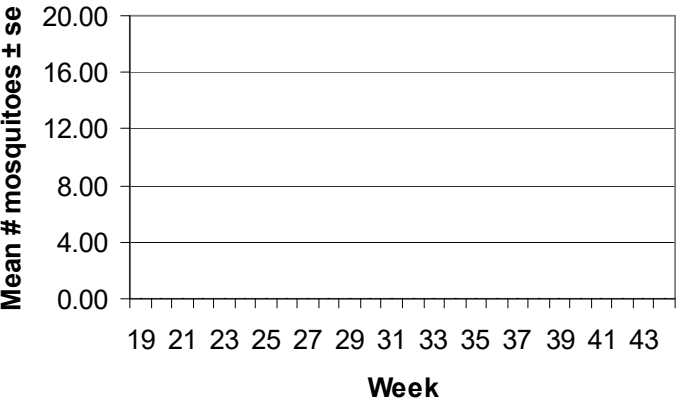
Culex Mix



Coquillettidia perturbans

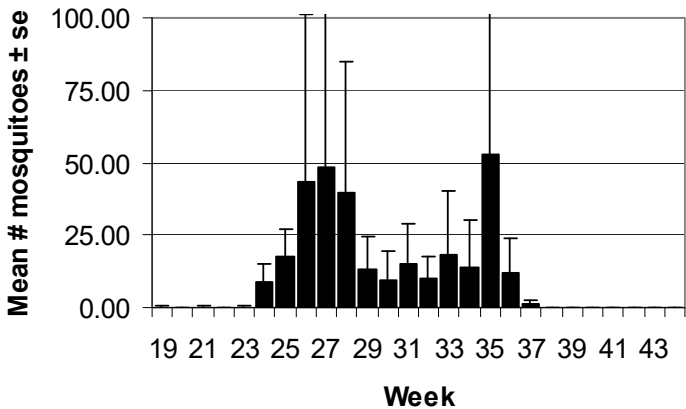


Ochlerotatus sollicitans

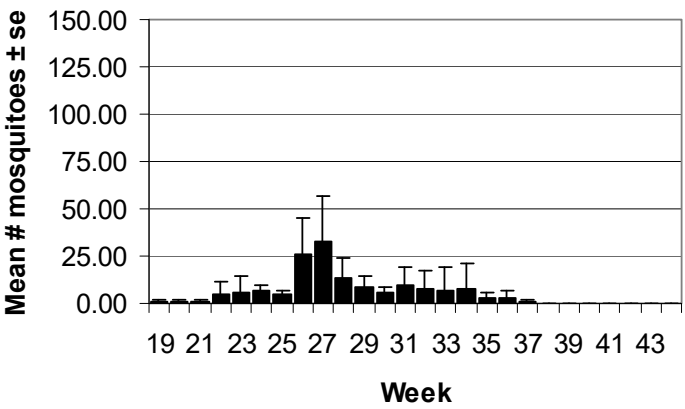


Philadelphia Metro

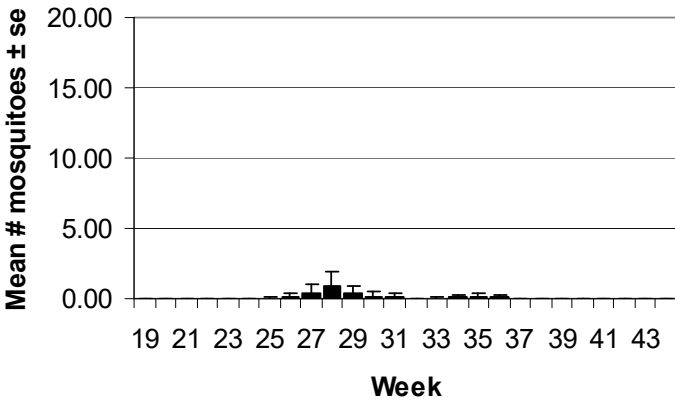
Aedes vexans



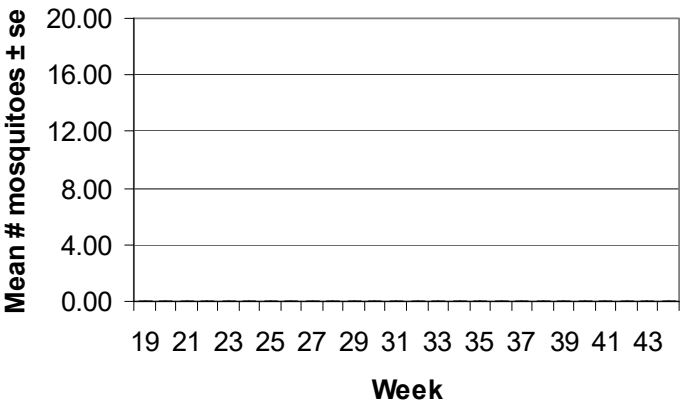
Culex Mix



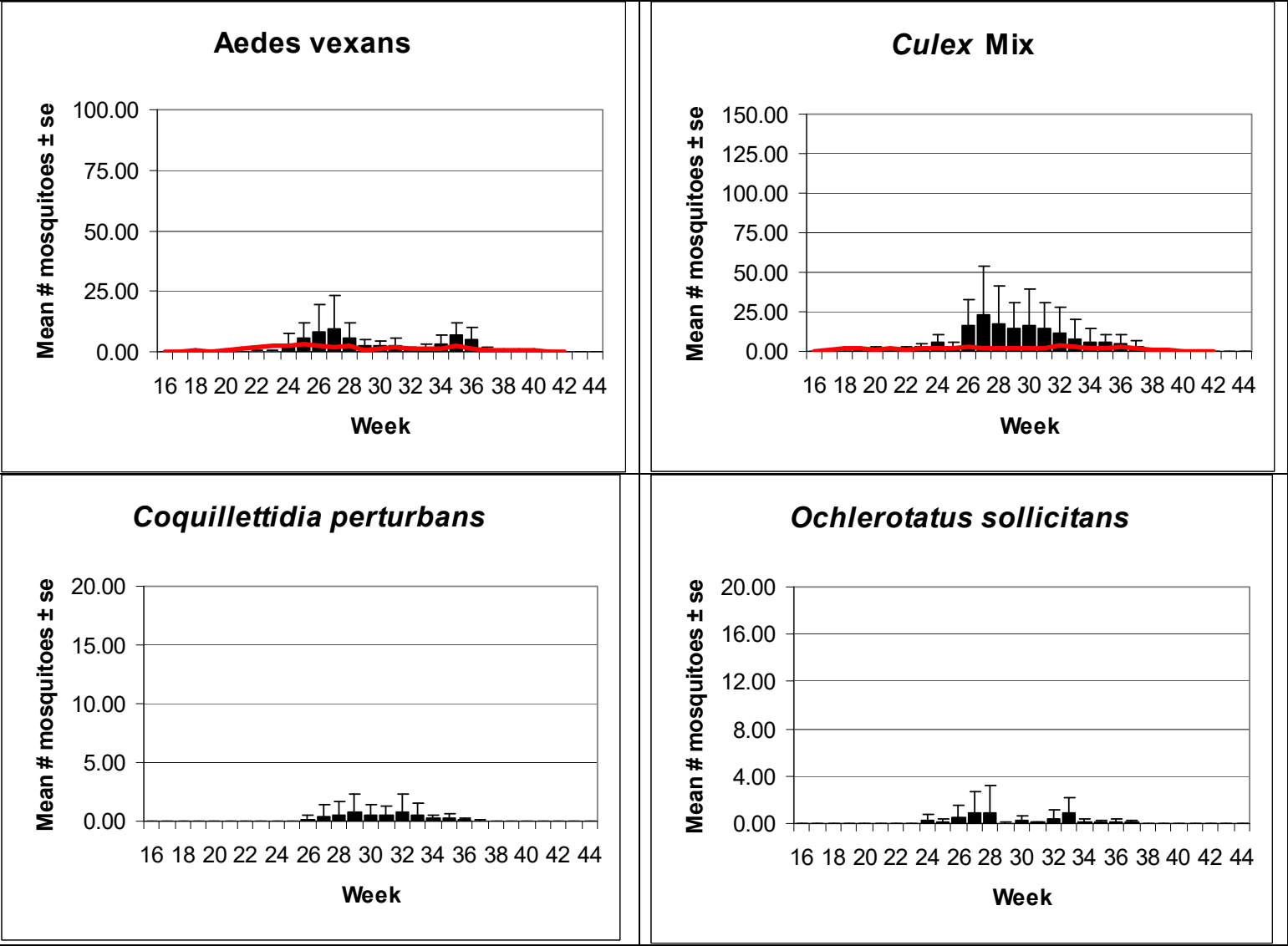
Coquillettidia perturbans



Ochlerotatus sollicitans

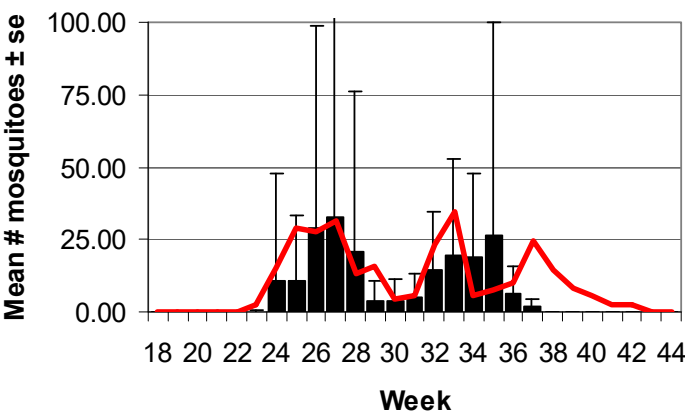


Pinelands

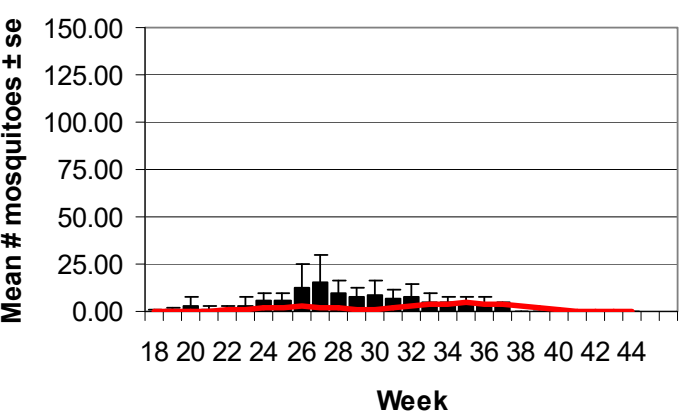


Suburban Corridor

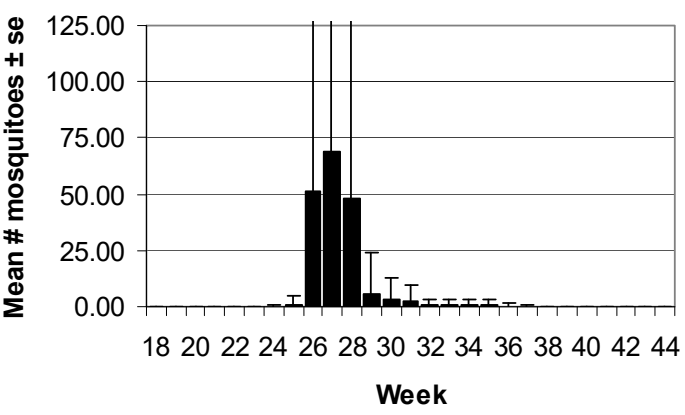
Aedes vexans



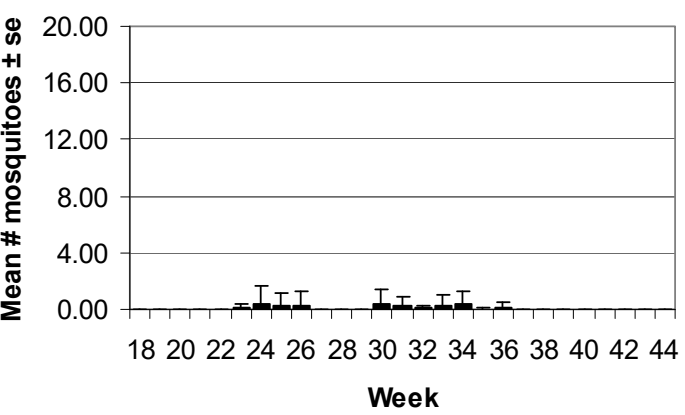
Culex Mix



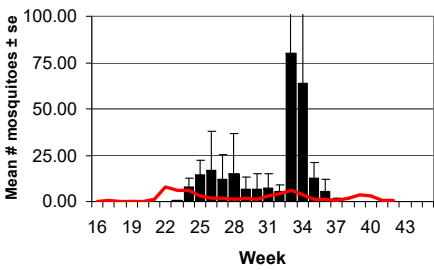
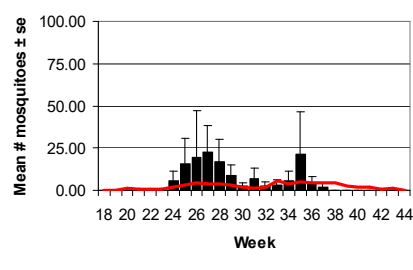
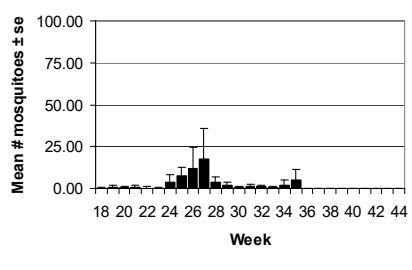
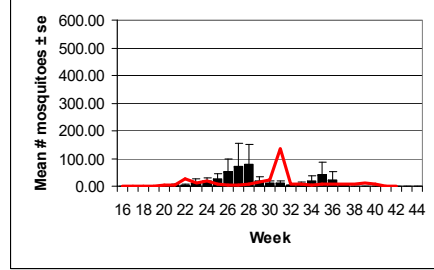
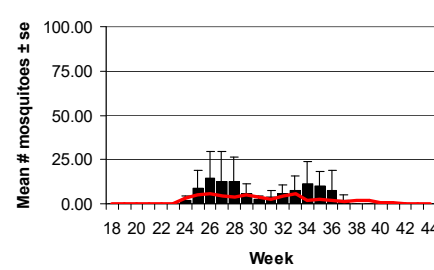
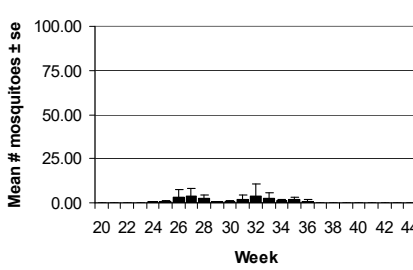
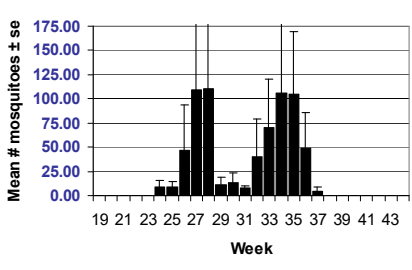
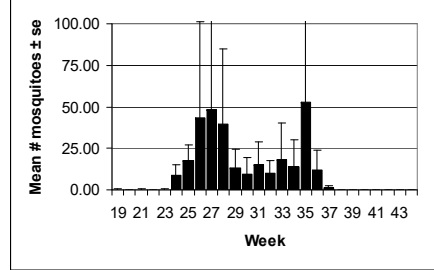
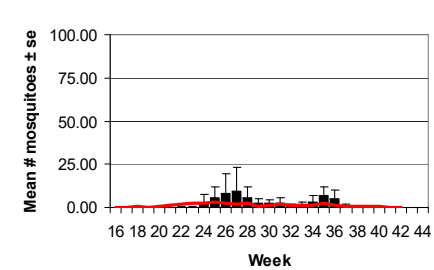
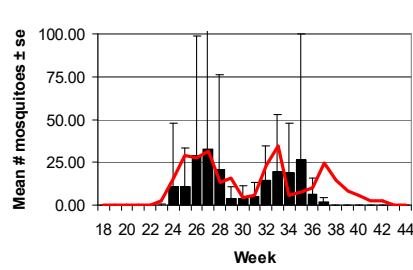
Coquillettidia perturbans



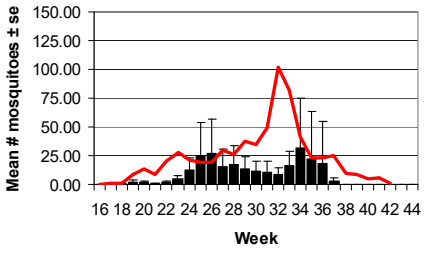
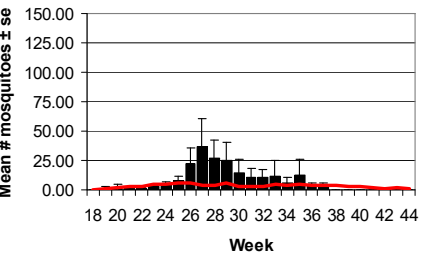
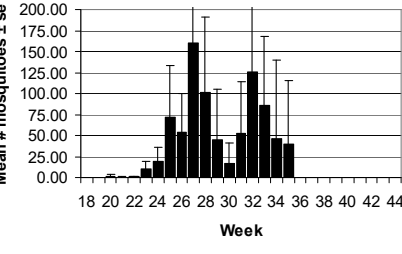
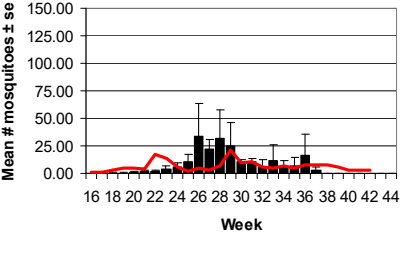
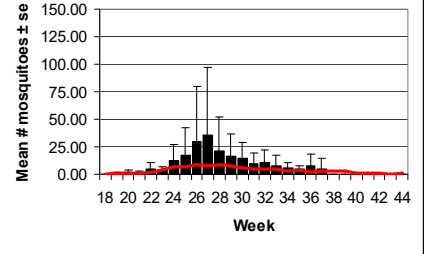
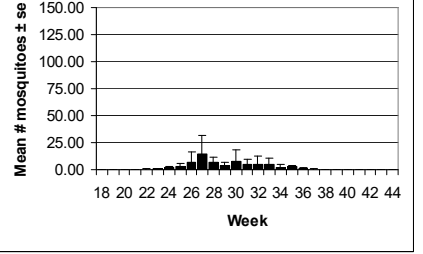
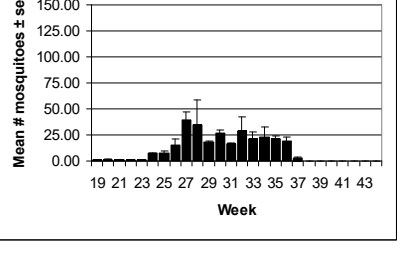
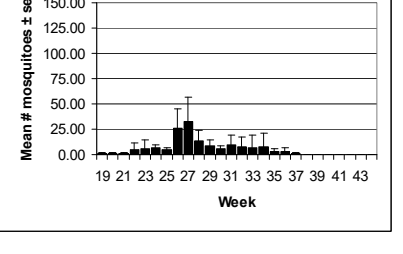
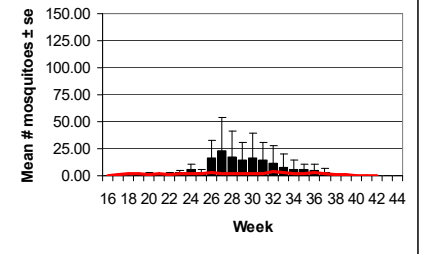
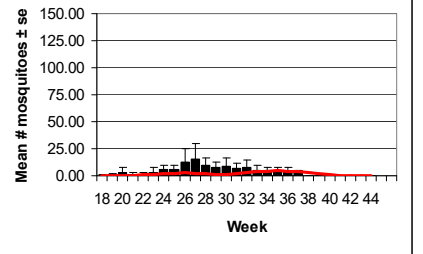
Ochlerotatus sollicitans



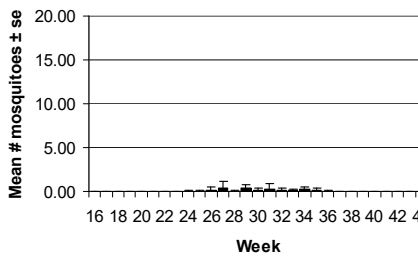
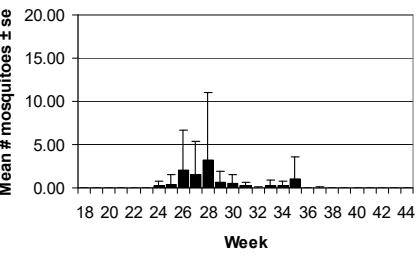
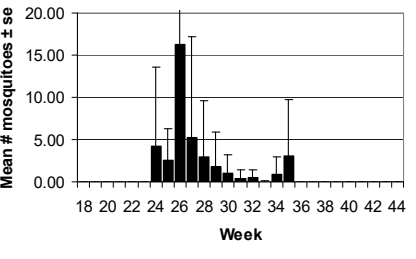
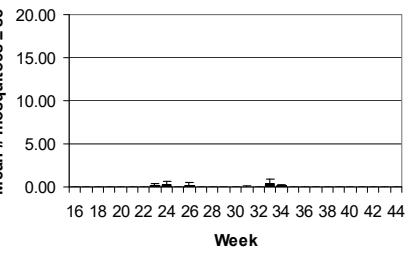
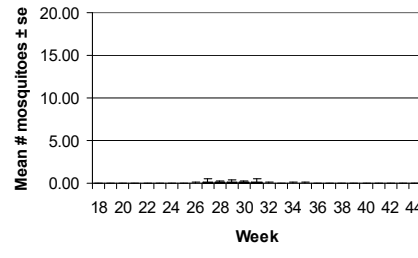
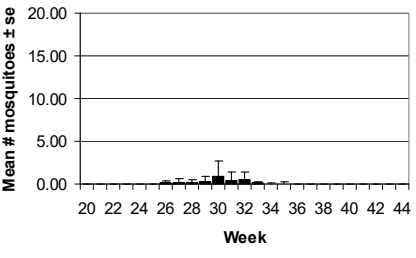
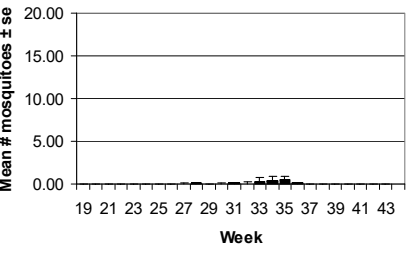
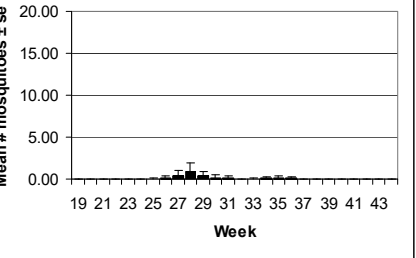
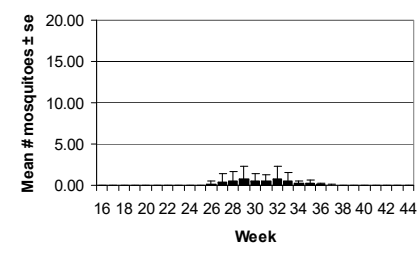
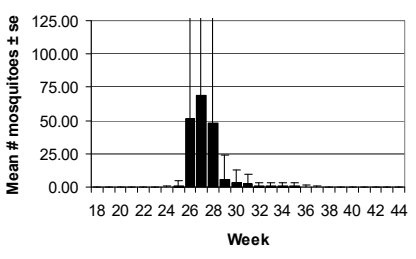
Aedes vexans

Agricultural	Coastal	Delaware Bayshore	Delaware River Basin
<i>Aedes vexans</i> 	<i>Aedes vexans</i> 	<i>Aedes vexans</i> 	<i>Aedes vexans</i> 
New York Metro	North Central Rural	Northwestern Rural	Philadelphia Metro
<i>Aedes vexans</i> 	<i>Aedes vexans</i> 	<i>Aedes vexans</i> 	<i>Aedes vexans</i> 
Pinelands	Suburban Corridor	Comments	
<i>Aedes vexans</i> 	<i>Aedes vexans</i> 	<i>Ae. vexans</i> – The last brood of <i>Ae. vexans</i> has all but disappeared from the State Surveillance light trap collections. Equine cases of WNV, however, continue to be reported, more than likely contracted from the floodwater mosquito biting populations depicted in the week 33-35 graphs. Recent rains should produce at least one more brood of floodwater mosquitoes. Cooler night-time temperatures, however, may minimize the amount of day-time nuisance that is generated by the late season mosquitoes.	

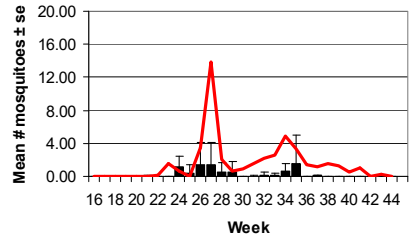
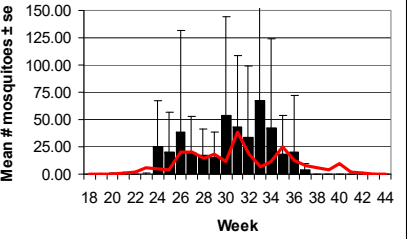
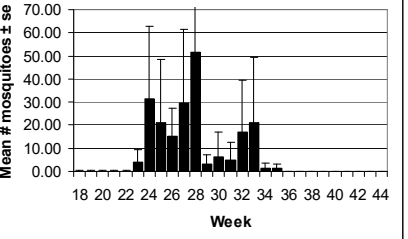
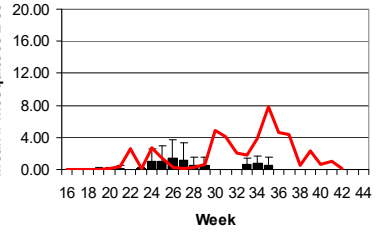
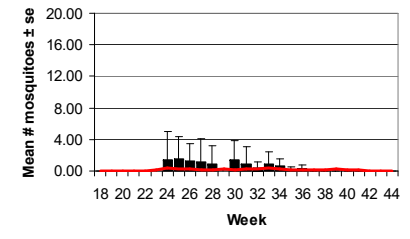
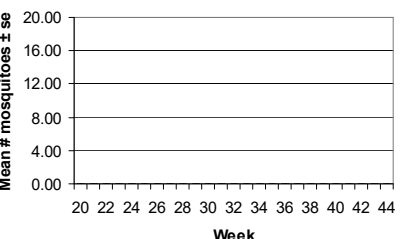
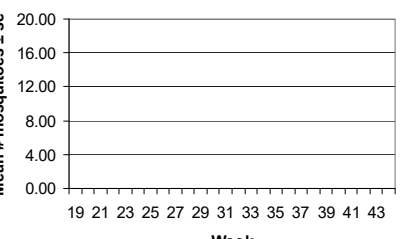
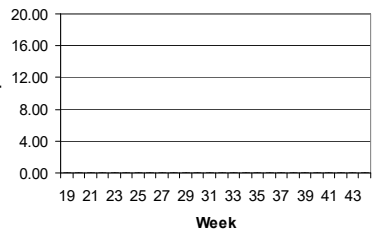
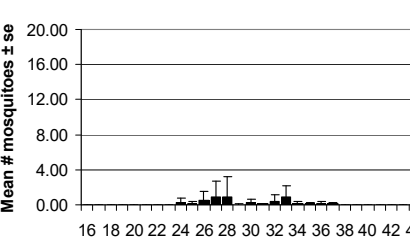
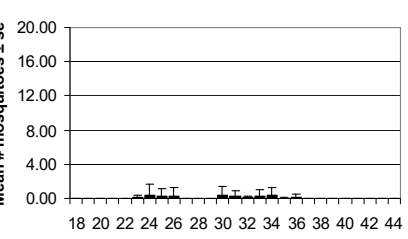
Culex Complex

Agricultural	Coastal	Delaware Bayshore	Delaware River Basin
Culex Mix 	Culex Mix 	Culex Mix 	Culex Mix 
New York Metro	North Central Rural	Northwestern Rural	Philadelphia Metro
Culex Mix 	Culex Mix 	Culex Mix 	Culex Mix 
Pinelands	Suburban Corridor	Comments	
Culex Mix 	Culex Mix 	Culex Complex –<i>Culex</i> populations have also declined in all regions of the state. The highest populations remain in the Delaware Bayshore Region, the area with the highest populations, by far all season. Delaware Bayshore <i>Culex</i> populations are historically <i>Culex salinarius</i>, a cold hardy mosquito that host-seeks into the month of November.	

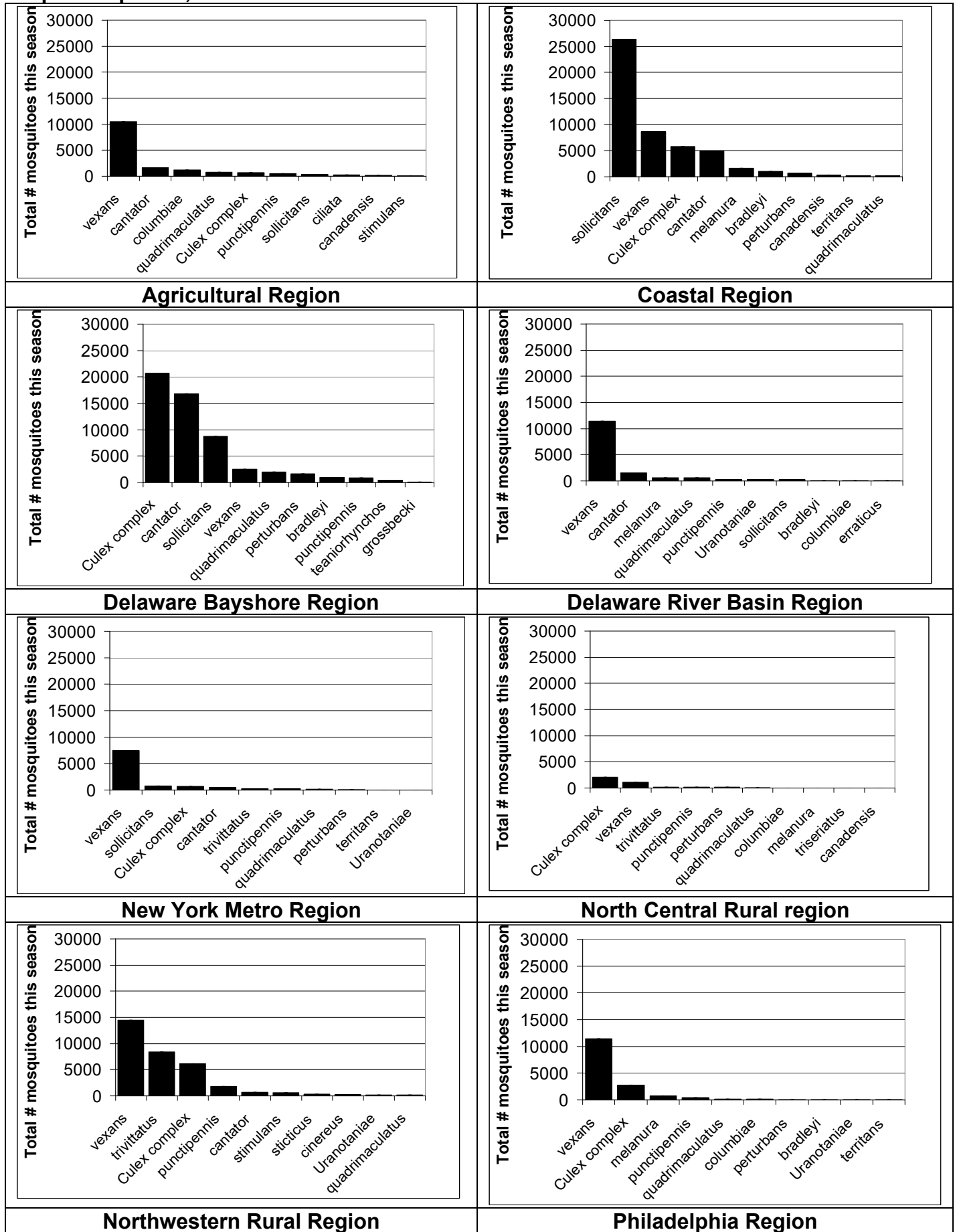
Coquillettidia perturbans

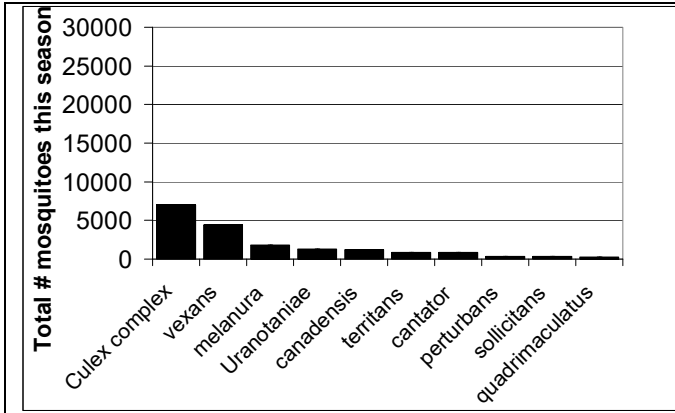
Agricultural	Coastal	Delaware Bayshore	Delaware River Basin
<i>Coquillettidia perturbans</i> 	<i>Coquillettidia perturbans</i> 	<i>Coquillettidia perturbans</i> 	<i>Coquillettidia perturbans</i> 
New York Metro	North Central Rural	Northwestern Rural	Philadelphia Metro
<i>Coquillettidia perturbans</i> 	<i>Coquillettidia perturbans</i> 	<i>Coquillettidia perturbans</i> 	<i>Coquillettidia perturbans</i> 
Pinelands	Suburban Corridor	Comments	
<i>Coquillettidia perturbans</i> 	<i>Coquillettidia perturbans</i> 	<i>Cq. perturbans</i> – State Surveillance light trap data indicate that the minor emergence of <i>Cq. perturbans</i> evident in week 35 has all but abated. In all probability, this species is all but finished for the season. The larvae have already hatched from egg boats deposited by this year's adult populations. The onset of cold weather will cease larval growth and the population will overwinter in multiple instars.	

Ochlerotatus sollicitans

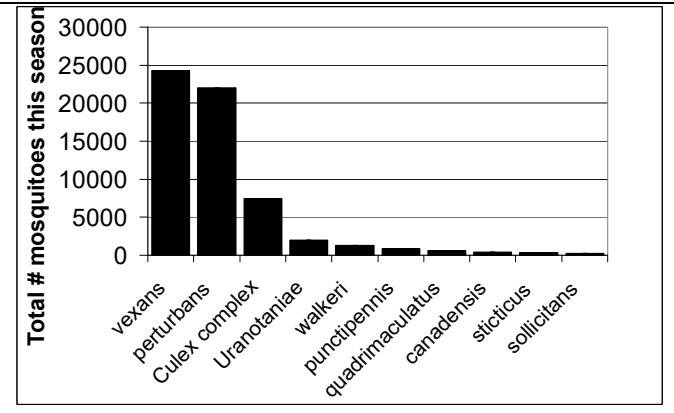
Agricultural	Coastal	Delaware Bayshore	Delaware River Basin
<i>Ochlerotatus sollicitans</i> 	<i>Ochlerotatus sollicitans</i> 	<i>Ochlerotatus sollicitans</i> 	<i>Ochlerotatus sollicitans</i> 
New York Metro	North Central Rural	Northwestern Rural	Philadelphia Metro
<i>Ochlerotatus sollicitans</i> 	<i>Ochlerotatus sollicitans</i> 	<i>Ochlerotatus sollicitans</i> 	<i>Ochlerotatus sollicitans</i> 
Pinelands	Suburban Corridor	Comments	
<i>Ochlerotatus sollicitans</i> 	<i>Ochlerotatus sollicitans</i> 	<i>Oc. sollicitans</i> – State Surveillance light trap data indicate that <i>Oc. sollicitans</i> populations are at their lowest numbers for the 2003 season. However, tidal surges from recent hurricane activity will probably produce a late season brood of salt marsh mosquitoes along most of the New Jersey coast. Weather conditions will determine if the brood moves off the marsh to blood feed. Many late season broods of <i>Oc. sollicitans</i> do not move far from their salt marsh habitat and cause minimal late season nuisance. The overall biting population usually shifts from nocturnal to diurnal biting behavior. Sizeable late season broods can cause considerable nuisance within a narrow band close to the salt marsh upland edge.	

Top Ten Species, 2003





Pinelands Region



Suburban Region